



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,054	06/24/2003	Dae-Ho Choo	61920219D1	1023
7590 09/08/2005			EXAMINER	
McGuire Woods LLP			RUDE, TIMOTHY L	
Suite 1800			ART UNIT	
1750 Tysons Boulevard			PAPER NUMBER	
McLean, VA 22102			2883	

DATE MAILED: 09/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/602,054

Applicant(s)

CHOO ET AL.

Examiner

Timothy L. Rude

Art Unit

2883

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 July 2005.
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-32 and 56 is/are pending in the application.
4a) Of the above claim(s) 21-32 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1,2,4-20 and 56 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 10 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10 June 2005 has been entered.

Drawings

1. The drawings were received on 10 June 2005. These drawings are accepted by examiner.

Election/Restrictions

2. Election was made final 04 August 2004, thereby closing arguments relative restriction. Applicant's appeal regarding restriction was denied 10 March 2005, again closing arguments relative restriction. It is very respectfully pointed out that **ARGUMENTS REGARDING RESTRICTION ARE CLOSED**. As a final courtesy regarding restriction, examiner provides the following:

Please note that Applicant states [remarks filed 20 May 2004, top of pages 3 and 5] that none of the inventions defined in claims 1-32 and 56 are independent and distinct from each other; therefore, if one invention defined in claims 1-32 is unpatentable over the prior art, Applicant's admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention(s). Please note that base claim 1 contains limitations drawn to non-elected Inventions I, II, III, and X that are considered to be not patentably distinct per Applicant's admission in Paper No. 20040520. Please note this admission was made as part of a substantial argument (several pages) as to being NOT distinct and NOT independent, so examiner considers the admission to be clear, deliberate, in earnest, and as such not retractable. Furthermore, Applicant's present arguments are NOT directed at outright retraction, rather, they are directed at making an improper distinction between "in terms of the restriction requirement" vs patentability. Please note, these are not separable conditions; "in terms of the restriction requirement" is in terms of patentability.

Lastly, Applicant argues examiner has not withdrawn the prior statement as to inventions I-XI being mutually unreleased. Please note that this statement (and similar prior statements Mailed 04 August 2004 and 11 March 2005) constitutes an agreement with Applicant's 20 May 2004 admission as to certain claims; this is not contradictory because claims are never species (and never inventions). This is considered routine and proper.

Claims and Claim Objections

3. Claim 3 is canceled. Claims 1, 2, 4-20, and 56 are amended.

Prior objection to claim 1 is withdrawn. Claim 1 is presently objected to because of the following informalities: Upon further consideration it is apparent that newly added recitations of "a sealant heat-treating unit ..." are drawn to non-elected invention VI. Examiner anticipates removal of these recitations and will examine the claim as not drawn to non-elected invention VI. Appropriate correction is required. Please note that claim 1 previously had (and presently has) other recitations drawn to non-elected inventions, but as a courtesy, examiner examined those recitations in the interests of compact prosecution. Please comply with Applicant's election of 20 May 2004 in response to restriction requirement of 15 December 2003 whenever filing amendments to claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1, 2, 4-20, and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawasumi et al (Kawasumi) USPAT 5,978,065 in view of Adachi, Japanese patent application publication JP 56114928 A.

As to claim 1, Kawasumi discloses (Figures 1A-3B) apparatus and a method for manufacturing liquid crystal displays (entire patent, background of the invention, and especially col. 5, line 13 through col. 7, line 14), comprising: applying sealant on one of two substrates of a mother glass, the mother glass having at least one liquid crystal cell (col. 5, lines 14-37) [inherently requires Applicant's sealant applying unit, even if it is manual], a substrate-attaching unit, 5 and 7, conjoining substrates in a vacuum (background, suitable though more costly method – affords better degasification of liquid crystal material). Please note numerous references teach these steps/apparatus.

FIG. 1A

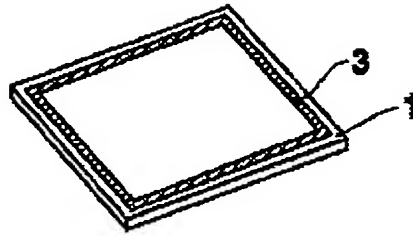


FIG. 1B

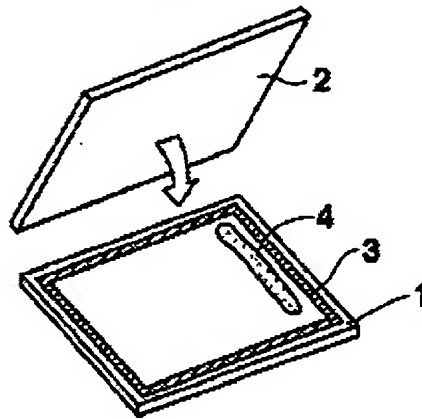


FIG. 1C

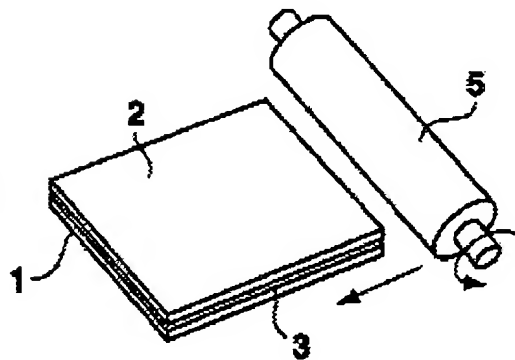


FIG. 2

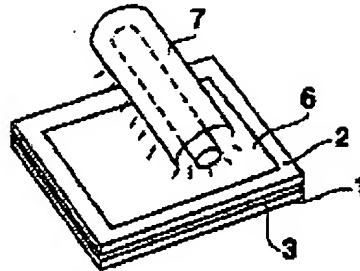


FIG. 3A

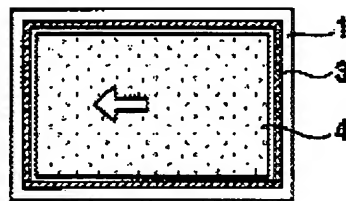
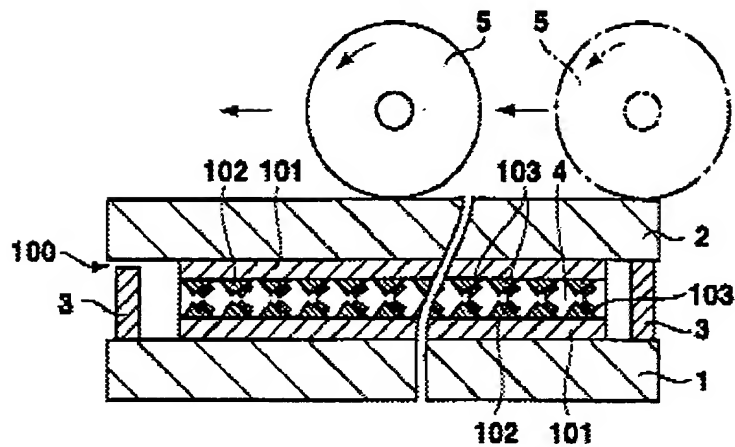
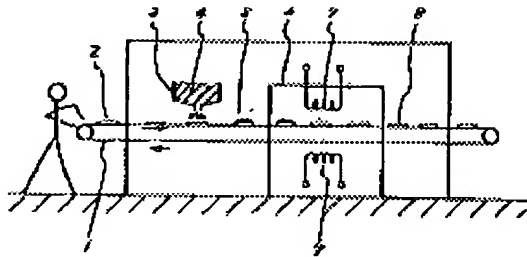


FIG. 3B



Kawasumi does not explicitly disclose the use of an in-line conveying unit.

Adachi teaches the use of a belt conveyor to provide a cleaner environment for the operators.



Adachi is evidence that ordinary workers in the art of liquid crystals would find the reason, suggestion, or motivation to add the use of a belt conveyor to provide a cleaner environment for the operators.

Therefore, it would have been obvious to one having ordinary skill in the art of liquid crystals at the time the invention was made to modify the LCD system of Kawasumi with the belt conveyor of Adachi to provide a cleaner environment for the operators.

As to claims 2, 4-20, and 56, Kawasumi in view of Adachi as combined above discloses the apparatus of claim 1, above. The added limitations of claims 2-20 and 56 are drawn to inventions of an in-line system that are not patentably distinct per Applicant's admission in Paper No. 20040520 [remarks filed 20 May 2004, top of pages 3 and 5]. Therefore claims 2-10 and 56 are rejected on the bases that they are not patentably distinct from rejected base claim 1.

5. Claims 1, 2, 4-20, and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawasumi et al (Kawasumi) USPAT 5,978,065 in view of Ogawa USPAT 6,680,759 B2.

As to claim 1, Kawasumi discloses (Figures 1A-3B) apparatus and a method for manufacturing liquid crystal displays (entire patent, background of the invention, and especially col. 5, line 13 through col. 7, line 14), comprising: applying sealant on one of two substrates of a mother glass, the mother glass having at least one liquid crystal cell (col. 5, lines 14-37) [inherently requires Applicant's sealant applying unit, even if it is manual], a substrate-attaching unit, 5 and 7, conjoining substrates in a vacuum [background, suitable though more costly method – affords better degasification of liquid crystal material].

Kawasumi does not explicitly disclose the use of an in-line conveying unit.

Ogawa teaches (background of the invention, col. 1, lines 34-44, and in the description of the preferred embodiments, col. 8, lines 46-52) the use of a conveyer type inline manufacturing system as a mainstream manufacturing apparatus to meet the demand for mass production of LCD display panels.

Ogawa is evidence that ordinary workers in the art of liquid crystals would find the reason, suggestion, or motivation to add the use of a conveyer type inline manufacturing system as a mainstream manufacturing apparatus to meet the demand for mass production of LCD display panels.

Therefore, it would have been obvious to one having ordinary skill in the art of liquid crystals at the time the invention was made to modify the LCD system of Kawasumi with the a conveyer type inline manufacturing system of Ogawa as a mainstream manufacturing apparatus to meet the demand for mass production of LCD display panels.

As to claims 2, 4-20, and 56, Kawasumi in view of Ogawa as combined above discloses the apparatus of claim 1, above. The added limitations of claims 2-20 and 56 are drawn to inventions of an in-line system that are not patentably distinct per Applicant's admission in Paper No. 20040520 [remarks filed 20 May 2004, top of pages 3 and 5]. Therefore claims 2-10 and 56 are rejected on the bases that they are not patentably distinct from rejected base claim 1.

Numerous example references cited but not applied are relevant to the instant Application. It is respectfully pointed out that examiner was unable to find any allowable subject matter in the instant Application. Examiner considers all claims obvious in view of well known and well documented methods of manufacture of liquid crystal displays in view of Ogawa, Adachi, and/or the automotive assembly line.

Response to Arguments

Applicant's arguments filed on 10 June 2005 have been fully considered but they are not persuasive.

Applicant's ONLY substantive arguments are as follows:

- (1) Claims are patentably distinct despite being not distinct and not independent for purposes of restriction.
- (2) Applied prior art does not teach the claimed sealant heat-treating unit.
- (3) Dependent claims are allowable because they directly or indirectly depend from an allowable base claim.

Examiner's responses to Applicant's ONLY arguments are as follows:

(1) It is respectfully pointed out that these are not separable conditions; "in terms of the restriction requirement" is in terms of patentability. Examiner restricted certain inventions and the restriction was upheld upon appeal. Applicant argued that certain claims are NOT distinct and NOT independent from base claim 1 drawn to the elected invention and examiner appropriately agreed, thereby allowing rejection of all claims under 35 USC 103(a) based upon rejection of base claim 1, per restriction requirement.

Please note that claims are never species. Arguments as to patentability of specific claims are not the same as arguments drawn to restriction of defined inventions and species. It is Applicant's responsibility to claim Applicant's elected invention. Applicant may always make an admission that a specific claim is not patentably distinct from a claim drawn to the elected invention; in any such case, the specific claim is

considered to stand or fall with the claim drawn to the elected invention. Please see bottom of page 5 of the restriction requirement Mailed 15 December 2003. Please also see examiner's responses at paragraph 2 of this action, above.

(2) It is respectfully pointed out that the claimed sealant heat-treating unit is a recitation drawn to non-elected invention VI and as such will not be examined. Examiner anticipated removal of the improper recitations in the interests of compact prosecution, rather than find Applicant's submittal non-responsive due to all claims being drawn to a non-elected invention. Applicant must claim exclusively the invention elected. Divisionals may be filed to pursue each non-elected invention.

(3) It is respectfully pointed out that in so far as Applicant has not argued rejection(s) of the limitations of dependent claim(s), Applicant has acquiesced said rejection(s).

Any references cited but not applied are relevant to the instant Application.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy L. Rude whose telephone number is (571) 272-2301. The examiner can normally be reached on Mon-Thurs.

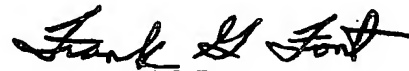
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on (571) 272-2415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



tlr

Timothy L Rude
Examiner
Art Unit 2883



Frank G. Font
Supervisory Patent Examiner
Technology Center 2800